

ROUTE PROTECTION IN A COMMUNICATION NETWORK

ABSTRACT

5 A communications network comprises a lower transport layer and an upper overlay
Incorporating a plurality of routers. Adjacencies are defined between respective pairs of
routers. Path protection is provided by defining a software model of the overlay of the
network and defining in the model a hierarchy of protection levels for the main path.
Each protection level is characterised by a respective set of one or more broken
10 adjacencies in the model, the adjacencies to be broken being determined from a
knowledge of the underlying topology. A protection level is selected and a protection
path avoiding the broken adjacencies associated with that protection level is calculated.
If this calculated path is not available in the real network, a lower protection level in the
hierarchy is selected and the protection path calculation repeated. The process
15 continues until a suitable protection path is identified.

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